



AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No.: 10/763,210

Atty. Docket No.: Q79353

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. - 11. (canceled).

12. (currently amended): An isolated antibody against a metalloprotease having aggrecanase activity, wherein said metalloprotease is selected from the group consisting of:

(a) — a purified metalloprotease comprising an amino acid sequence represented by amino acids 213-583 of SEQ ID NO: 1 or an amino acid sequence represented by amino acids 213-583 of SEQ ID NO: 1 wherein from 1 to 10 amino acid residues are substituted, deleted an/or inserted, and wherein said metalloprotease has aggrecanase activity;

(b) — a purified metalloprotease comprising an amino acid sequence represented by amino acids 1-583 of SEQ ID NO: 1 or an amino acid sequence represented by amino acids 1-583 of SEQ ID NO: 1 wherein from 1 to 10 amino acid residues are substituted, deleted an/or inserted, and wherein said metalloprotease has aggrecanase activity;

(c) — a purified metalloprotease comprising an amino acid sequence selected from the group consisting of an amino acid sequence represented by amino acids 1-950 of SEQ ID NO: 1, an amino acid sequence represented by amino acids 1-687 of SEQ ID NO: 1, an amino acid sequence represented by amino acids 1-583 of SEQ ID NO: 1, an amino acid sequence represented by amino acids 213-950 of SEQ ID NO: 1, an amino acid sequence represented by amino acids 213-687 of SEQ ID NO: 1, an amino acid sequence represented by amino acids

~~213-583 of SEQ ID NO: 1, and any one of said sequences wherein from 1 to 10 amino acid residues are substituted, deleted and/or inserted, and wherein said metalloprotease has aggrecanase activity; and~~

~~(d) — a purified metalloprotease consisting of comprising an amino acid sequence that has 90% or more sequence homology with the amino acid sequence set forth in SEQ ID NO: 1, wherein said metalloprotease has aggrecanase activity.~~

13. (withdrawn): A method for screening a substance capable of inhibiting an aggrecanase activity of a metalloprotease, which comprises allowing the metalloprotease to contact a compound to be tested, wherein the metalloprotease is selected from the group consisting of:

(a) a purified metalloprotease comprising an amino acid sequence represented by amino acids 213-583 of SEQ ID NO: 1 or an amino acid sequence represented by amino acids 213-583 of SEQ ID NO: 1 wherein from 1 to 10 amino acid residues are substituted, deleted and/or inserted, and wherein said metalloprotease has aggrecanase activity;

(b) a purified metalloprotease comprising an amino acid sequence represented by amino acids 1-583 of SEQ ID NO: 1 or an amino acid sequence represented by amino acids 1-583 of SEQ ID NO: 1 wherein from 1 to 10 amino acid residues are substituted, deleted and/or inserted, and wherein said metalloprotease has aggrecanase activity;

(c) a purified metalloprotease comprising an amino acid sequence selected from the group consisting of an amino acid sequence represented by amino acids 1-950 of SEQ ID NO: 1,

an amino acid sequence represented by amino acids 1-687 of SEQ ID NO: 1, an amino acid sequence represented by amino acids 1-583 of SEQ ID NO: 1, an amino acid sequence represented by amino acids 213-950 of SEQ ID NO: 1, an amino acid sequence represented by amino acids 213-687 of SEQ ID NO: 1, an amino acid sequence represented by amino acids 213-583 of SEQ ID NO: 1, and any one of said sequences wherein from 1 to 10 amino acid residues are substituted, deleted and/or inserted, and wherein said metalloprotease has aggrecanase activity; and

(d) a purified metalloprotease comprising an amino acid sequence that has 90% or more sequence homology with the amino acid sequence set forth in SEQ ID NO: 1, wherein said metalloprotease has aggrecanase activity.

14. (withdrawn): A pharmaceutical composition for inhibiting degradation of proteoglycans, which comprises a substance capable of inhibiting a metalloprotease selected from the group consisting of:

(a) a purified metalloprotease comprising an amino acid sequence represented by amino acids 213-583 of SEQ ID NO: 1 or an amino acid sequence represented by amino acids 213-583 of SEQ ID NO: 1 wherein from 1 to 10 amino acid residues are substituted, deleted and/or inserted, and wherein said metalloprotease has aggrecanase activity;

(b) a purified metalloprotease comprising an amino acid sequence represented by amino acids 1-583 of SEQ ID NO: 1 or an amino acid sequence represented by amino acids

1-583 of SEQ ID NO: 1 wherein from 1 to 10 amino acid residues are substituted, deleted and/or inserted, and wherein said metalloprotease has aggrecanase activity;

(c) a purified metalloprotease comprising an amino acid sequence selected from the group consisting of an amino acid sequence represented by amino acids 1-950 of SEQ ID NO: 1, an amino acid sequence represented by amino acids 1-687 of SEQ ID NO: 1, an amino acid sequence represented by amino acids 1-583 of SEQ ID NO: 1, an amino acid sequence represented by amino acids 213-950 of SEQ ID NO: 1, an amino acid sequence represented by amino acids 213-687 of SEQ ID NO: 1, an amino acid sequence represented by amino acids 213-583 of SEQ ID NO: 1, and any one of said sequences wherein from 1 to 10 amino acid residues are substituted, deleted and/or inserted, and wherein said metalloprotease has aggrecanase activity; and

(d) a purified metalloprotease comprising an amino acid sequence that has 90% or more sequence homology with the amino acid sequence set forth in SEQ ID NO: 1, wherein said metalloprotease has aggrecanase activity.

15. (withdrawn): A method of treating a joint disease, comprising administering to a patient in need of treatment a compound obtainable by the method of claim 13, thereby treating a joint disease.

16. (withdrawn): A polynucleotide represented by SEQ ID NO: 24, 25, 26, 27, 28, 29, 30 or 31, or a polynucleotide represented by SEQ ID NO: 24, 25, 26, 27, 28, 29, 30 or 31 and

wherein from 1 to 10 nucleotide residues are substituted, deleted and/or inserted, wherein said polynucleotide has a joint disease aggrecanase promoter activity.

17. (withdrawn): A method for screening a substance capable of inhibiting aggrecanase promoter activity, which comprises allowing a cell transformed with the polynucleotide described in claim 16 to contact a compound to be tested.